

## NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD

### WETLAND ENHANCEMENT, (ACRE)

#### Code 659

#### DEFINITION

The modification or rehabilitation of an existing or degraded wetland, where specific functions and/or values are modified for the purpose of meeting specific project objectives. Some functions may remain unchanged while others may be degraded.

#### PURPOSE

To modify the hydrologic condition, hydrophytic plant communities, and/or other biological habitat components of a wetland for the purpose of favoring specific wetland functions or values.

#### CONDITIONS WHERE PRACTICE APPLIES

This practice applies on any degraded or existing wetland where the objective is to specifically enhance a selected wetland function(s) and/or value(s).

Enhancement should not significantly change the primary wetland functions that occurred at the site prior to manipulation.

Sites containing threatened or endangered species will not be enhanced under this standard unless it can be demonstrated that the impact will benefit the species at risk.

Upon completion of the enhancement the site will meet the current NRCS soils, hydrology, and vegetation criteria of a wetland.

If the presence of hazardous waste materials in the sediment or fill is suspected, soil samples will be collected and analyzed for the presence of

hazardous waste as defined by local, state, or federal authorities. Sites containing hazardous waste will not be enhanced under this standard.

This practice does not apply to:

1. A Constructed Wetland (656) intended to treat point and non-point sources of water pollution;
2. Wetland Restoration (657) intended to rehabilitate a degraded wetland where the soils, hydrology, vegetative community, and biological habitat are returned to original conditions; or
3. Wetland Creation (658) for creating a wetland on a site location which historically was not a wetland or on a site which was formerly a wetland but will be replaced with a wetland type not naturally occurring on the site.

#### CRITERIA

**General Criteria.** Refer to practice standard Wetland Restoration (657) for General Criteria.

**Criteria for Hydric Soil Conditions.** Refer to practice standard Wetland Restoration (657) for Criteria for Hydric Soil Conditions.

**Criteria for Wetland Hydrology.** Hydrology should be available approximating the needs of the wetlands and is defined as the rate, path, and timing of inflow and outflow; duration, frequency, and depth of flooding, ponding or saturation. An adequate source of water

must be available to meet designs for increased hydrology.

The standards and specifications for Dike (356) and Structure for Water Control (587) will be used as appropriate. Refer to Engineering Field Handbook Chapters 13, Wetland Restoration, Enhancement, or Creation; and 6, Structures, for additional design information. Existing drainage systems will be utilized, removed, or modified as needed to achieve the intended purpose.

**Criteria for Hydrophytic Vegetation.** In soils where seedbanks of desirable species exist or natural succession of selected species will begin to occur in less than five years, natural regeneration will be allowed for revegetation. The topsoil from wetland excavated areas will be stockpiled and redistributed to maintain plant seedbanks.

In wetlands where supplemental vegetation is necessary, plantings will be done. Applicable guidelines can be found in Iowa Biology Technical Note #9, Designing Areas for Wildlife; Iowa Biology Job Sheet #3, Waterfowl Flood Plants and Their Management; Tree Planting (612); Woodland Direct Seeding (652); Wildlife Wetland Habitat Management (644); and Engineering Field Handbook Chapter 13.

Plantings, seeding, or other types of vegetative establishment will be comprised of native species that occur on the wetland type being enhanced. Preference shall be given to plant materials collected within a 200-mile radius from the site or purchased from reliable plant sources.

Adequate substrate material necessary for proper establishment of the selected plant species shall be included in the design.

If uplands are planned as part of an enhancement, then native seedlings should be used for these areas as well. Refer to Conservation Cover (327) for herbaceous restorations or Tree/Shrub Establishment (612), Woodland Direct Seeding (652) and Upland Wildlife Habitat Management (645) if trees and/or shrubs are desired.

Vegetative establishment should include a diverse range of plant species. Ensure that the approved seeding mixture does not include weed species and invasive species (e.g. Reed Canarygrass).

**Criteria for Wetland Functions.** Refer to practice standard Wetland Restoration (657) for Criteria for Wetland Functions.

## DESIGN CRITERIA

Refer to practice standard Wetland Restoration (657) for Design Criteria.

## CONSIDERATIONS

Refer to practice standard Wetland Restoration (657) for Considerations.

## PLANS AND SPECIFICATIONS

Refer to practice standard Wetland Restoration (657) for Plans and Specifications.

## OPERATION AND MAINTENANCE

Refer to practice standard Wetland Restoration (657) for Operation and Maintenance.